



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,806	12/27/2001	Yoshio Kishimoto	740819-728	1379

7590 11/13/2003

McDermott, Will & Emery
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

PETKOVSEK, DANIEL J

ART UNIT	PAPER NUMBER
----------	--------------

2874

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/026,806	Applicant(s) KISHIMOTO ET AL.	
	Examiner Daniel J Petkovsek	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on October 7, 2003 (election).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 11-26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☒ Claim(s) 6-8, and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>12/27/01</u> | 6) <input type="checkbox"/> Other: <i>Ben Healy</i> |

DETAILED ACTION

Election/Restrictions

1. Claims 11-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group. Election was made **without** traverse in paper received October 7, 2003.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The prior art documents submitted by Applicant in the Information Disclosure Statements filed on December 27, 2001, have been considered and made of record (note attached copy of forms PTO-1449).

Claim Objections

4. Claims 6-8 are objected to because of the following informalities: in part (d) of claim 6, "said refractive index-lowering molecules *is* distributed unevenly", should be changed to "said refractive index-lowering molecules *are* distributed unevenly". Appropriate correction is required. Claims 6-8 are otherwise allowable over the prior art, after minor informalities are corrected.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Levenson et al. U.S.P. No. 5,291,574.

Levenson et al. U.S.P. No. 5,291,574 teaches (Fig. 6, column 4, lines 53-57) a planar optical waveguide with an optical core, wherein the core is formed over a substrate, a low index polymer layer is formed around the waveguide core, and wherein the waveguide core has the low refractive index material at its periphery, which clearly, fully meets Applicant's claimed limitation.

8. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki et al. US 2001/0007606 A1.

Sasaki et al. US 2001/0007606 A1 teaches (ABS, Fig. 1, [0023]-[0025]) a planar optical waveguide with an optical core 2, wherein the core is formed over a substrate 1, an over cladding having refractive index lowering dopants (such as B₂O₃) are formed around the waveguide core, and wherein the waveguide core has the low refractive index material at its periphery, which clearly, fully meets Applicant's claimed limitation.

Allowable Subject Matter

9. Claims 1-5 are allowed. The method claims 6-8 are objected to for having minor informalities, but contain the same allowable material. The relevant prior art does not teach or reasonably suggest the limitation in which "said refractive index-lowering molecules included in said dopant layer are unevenly distributed in said optical waveguide core with a concentration that is higher toward outer sides and corners of said optical waveguide core, whereby a graded-index optical waveguide is constituted." There is no teaching or reasonable suggestion from the prior art that the distribution of refractive index-lowering molecules is higher toward the edges or corners of the waveguide core.

10. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The relevant prior art does not teach or reasonably suggest that the distribution of the refractive index-lowering molecules is uneven, with a higher concentration toward the outer sides of the optical waveguide core.

Inventorship

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of planar optical waveguides having layers with low refractive indices: PTO-892 form references C-G.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (703) 305-6919. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9321.



Daniel Petkovsek
October 31, 2003

